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doi:10.1016/S0300-483X(03)00524-9

were run on sodium dodecyl sulphate polyacrylamide gels (SDS-PAGE). An in-gel digest of the 18.4 KDa band was carried out and using tandem mass spectrometry (ms/ms) by static nanospray ionisation on a ThermoFinnigan LCQ duo, the protein was identified as Cu/Zn superoxide dismutase (SOD).

SOD levels were measured in the serum and urine samples obtained in the repeat dose study. In CCl_4-treated urine samples SOD was found to be 5-fold increased over control levels, whereas serum SOD levels were 1.5- to 2-fold greater than control.

Hepatotoxicity was assessed by histopathology in all experiments. Serum enzymes were measured as indicators of hepatic injury. ALP, AST, ALT and GLDH levels were elevated in CCl_4-treated rats, confirming histological findings of hepatocyte degeneration and necrosis, and possible subsequent inflammatory changes.

The enzyme SOD catalyses the destruction of the superoxide anion (O_2^-) and therefore acts as a defence against oxidative damage. SOD exists as a homodimer (molecular weight of 32.5 KDa). This would correlate with a 15.7 KDa subunit observed by SELDI but presumably means that the SOD subunit runs anomalously on SDS PAGE at 18.4 KDa. The importance of identifying SOD in the urine following hepatic injury has yet to be determined.

Reference

Dare, T.O., Davies, H.A., Turton, J.A., Lomas, L., Williams, T.C., York, M.J., 2002. Electrophoresis 23, 3241–3251.

Keywords: Carbon tetrachloride; Superoxide dismutase; Urine; Liver; Rat

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